BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.

In the matter of:	**:**		
	:		
Public Notice DA 18-396	**:**	**GN Docket No.**	**(FCC) 18-122**
Expanding Flexible Use of the 3.7 GHz to	**:**		
4.2 GHz Band	**:**		**:**

Comments of Airlines for America

Communication with respect to this document should be sent to:

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I. Introduction

Airlines for America (A4A), on behalf of its members, submits these comments in response to the Federal Communication Commission's (FCC) Public Notice (the Notice) concerning Expanding Flexible Use of the 3.7 GHz to 4.2 GHz Band. A4A is the principal trade and service organization of the U.S. scheduled airline industry. The Notice affects all U.S. member airlines.[1]

We are acutely concerned about impacts to aviation safety, specifically disruption of the frequencies used for radio altimetry worldwide and wish to raise awareness of C-band SATCOM usage for aviation data backhaul (e.g. DataComm stations, NOAAPort, etc.).

By these comments we also seek to the Commission realize the strength of support for radio altimeters. We respectfully recommend that FCC request the Federal Aviation Administration (FAA) to provide input on the impact on adjacent band changes to radio altimeters before a decision is made.

II. Summary of A4A Position

A4A and its members are opposed to any encroachment upon the operation of aircraft radio altimeters in the adjacent 4.2-4.4 GHz band and expect that FCC will fully evaluate our and other industries' use of C-Band for safety-critical purposes.

[1] A4A airline members are Alaska Airlines, Inc.; American Airlines, Inc.; Atlas Air, Inc.; Federal Express Corporation; Hawaiian Airlines; JetBlue Airways Corp.; Southwest Airlines Co.; United Air Lines, Inc.; United Parcel Service Co. A4A Airline Associate Member: Air Canada.

III. Specific Concerns

A. Radio Altimetry

The radio altimeter provides pilots and aircraft systems with high resolution readings of an aircraft's height above the terrain during all phases of flight, with an accuracy of less than 3 ft for precision navigation. Operating in the adjacent 4.2-4.4 GHz band, the system is part of the required Minimum Equipment List ("MEL") for medium and large aircraft and is critical during low level maneuvering such as landing/take-off and terrain avoidance. Altimeters are now equipped on approximately 3,500 A4A member aircraft registered in the US, many thousands of other US registered private and commercial aircraft, and all international aircraft entering US airspace every day that benefit the US economy. It was introduced after a number of aviation incidents involving aircraft flying unintentionally into the ground and has significantly improved aviation safety for all aircraft types since its widespread adoption in the 1970s. We are aware that Aviation Spectrum Resources Inc. (ASRI) has provided additional information to the commission on this issue in 2011, noting back then that a full retrofit for only the US fleet would cost in excess over $2 bn at that time, let alone the changes required for the international air transport industry that enters US airspace.

The integrity of radio altimetry frequencies, with assurance of non-interference, is essential to aviation safety and cannot be compromised. Any bandwidth change that threatens the integrity of existing altimeters would require airlines to replace them, causing retrofit at enormous cost to thousands of parties.

B. C-Band SATCOM

Aviation operators need continued access to C-band SATCOM for aviation data, as the system provides unparalleled levels of availability compared to alternative Ku and Ka SATCOM systems. C-band SATCOM's ability to operate in most weather conditions means airlines and aviation authorities use it worldwide for the distribution of aviation data that cannot be interrupted. This includes messages and data used in the planning and control of aircraft that cannot be sent via other means due to availability or lack of infrastructure. In the US this specifically includes the National Oceanic and Atmospheric Administration's ("NOAA") weather distribution system called NOAAPort, providing weather feeds from NOAA's to aviation users.

A4A urges the Commission to use caution in its approach to potentially large changes to the C-band SATCOM, especially with the few alternatives for mission specific data certain industries require. The aviation community is still assessing the plan proposed by Intelsat/SES/Intel on use of the 3.7-3.8 GHz band for 5G services and are in direct discussions with the representatives to understand the details of the proposal.

A4A urges the Commission to be fully aware of the importance of C-Band to aviation, and intrinsically to the public concern for safety of flight, and to proceed cautiously.

IV. Summary

Airlines for America and its members believe that FCC must avoid allowing any encroachment upon the frequencies associated with radio altimetry. The systems are required for safety of flight and retrofit of potentially tens of thousands of aircraft is impractical and astonishingly costly. Further, we encourage the FCC to be thoroughly mindful of the wide use of C-Band for SATCOM and many other purposes that have been raised by other commenters.

Finally, we urge FCC to involve the FAA at a detailed level to assure full understanding of the Notice's potential impacts to aviation safety.

We appreciate the opportunity to comment on the Notice and thank the FCC for consideration of our views and recommendations. If you have any questions, please do not hesitate to contact the undersigned.

Robert Isaacs

Airlines for America